

**Missouri Assessment Program  
Spring 2004**

**Science**

**Scoring Guide for Released Items**

**Grade 10**

**Session:** 1  
**Item:** 2  
**Page:** 3  
**Standard:** III.A.4 (Std 1)  
**Goals:** 1.10

**Key Elements:**

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electron, proton, neutron (in any order)

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– with electron, + with proton, 0 with neutron

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Electron is circled.

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**Score Points:**

3 points three key elements

2 points two key elements

1 point one key element

0 points Other

**Session:** 1  
**Item:** 6  
**Page:** 5  
**Standard:** II.A.2 (Std 8)  
**Goals:** 3.8

**Key Elements:**

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*any one of the following:*

- X-rays may cause cancer; MRIs do not.
  - X-ray (film) is black and white; MRI (images) may be in color.
  - MRIs show soft-tissue organs more clearly than X-rays.
  - MRIs can be reprocessed to show 3-D images.
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**Score Points:**

1 point    one key element

0 points    Other

**Session:** 1  
**Item:** 15  
**Page:** 10  
**Standard:** V.A.2 (Std 6)  
**Goals:** 1.10

**Key Elements:**

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*any one of the following:*

- Jupiter is mostly made of hydrogen and helium gases; gravitational forces acting on larger mass with such a composition might have caused nuclear fusion to occur.
  - A larger mass and size could have provided sufficient gravity to start fusion, similar to how a star might be born.
  - any answer where the student notes the need for a sufficient mass or the need for hydrogen to produce nuclear fusion
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**Score Points:**

1 point    one key element

0 points    Other

**Session:** 3  
**Item:** 30  
**Page:** 13  
**Standard:** VII.A.2 (Std 3)  
**Goals:** 1.10

**Key Elements:**

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cell B

**AND**

*either one of the following:*

- contains chloroplasts where sugar is formed
  - contains chloroplasts that perform photosynthesis
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**Score Points:**

1 point    one key element

0 points    Other